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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/924,334	08/06/2001	Stephen C. Thilenius	10559/482001/P11399	3001
20985	7590	09/19/2005	EXAMINER	
FISH & RICHARDSON, PC 12390 EL CAMINO REAL SAN DIEGO, CA 92130-2081			JAMAL, ALEXANDER	
			ART UNIT	PAPER NUMBER
			2643	

DATE MAILED: 09/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/924,334

Applicant(s)

THILENIUS, STEPHEN C.

Examiner

Alexander Jamal

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. **Claims 1-26** rejected under 35 U.S.C. 102(e) as being anticipated by Vanderbauwhede et al (6917682).

As per **claim 1**, Vanderbauwhede discloses an echo cancellation circuit (Fig. 3) between a transmitter and receiver (8,9 in Fig. 1) with first and second branches coupled between the TX and RX points. Each branch comprises real and imaginary impedances (resistors and capacitors).

As per **claim 9**, claim rejected for same reasons as claim 1 rejection. There are four branches in Fig. 3, each branch comprising real and imaginary impedances.

As per **claim 15**, claim rejected for same reasons as claim 1,9 rejections. The signal is transmitted via points 15A, 16A and received via points 17,18. Zb and Z2 in Fig. 2 are complex impedances that attenuate the transmit signal.

As per **claims 2,10**, two branches (first and third) Z2 comprise R2 and C2 in series.

As per **claims 3,8**, two branches (2<sup>nd</sup> and 4<sup>th</sup>) comprise R0 in parallel with the series combination of R1 and C1.

As per **claims 4,12,16**, the circuit is implemented in a transmit/receive circuit with termination resistors 12 (Fig. 2) and transformer 2 (Fig. 1).

As per **claims 5,13**, the impedance of the 1<sup>st</sup> and 3<sup>rd</sup> branches are proportional to the combined impedance of the transformer and transmission line over a range of frequencies.

As per **claims 6,14,18,20**, the total impedance of the 2<sup>nd</sup> and 4<sup>th</sup> branches are proportional to a sum of the transformer/transmission line impedance and the terminating resistor over a range of frequencies.

As per **claim 7**, the system may be tuned for an ISDN system in which the operating range of frequencies may be 0-80KHz, as such the two branches must be appropriately proportional as per the claim 5,6 rejections in order for the system to function correctly.

As per **claims 17,19**, the prior art circuit will divide the voltage of the each part of the TX signal.


As per **claim 21**, the input signal is amplified by amplifier 20 (Fig. 2).

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander Jamal whose telephone number is 571-272-7498. The examiner can normally be reached on M-F 9AM-6PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis A Kuntz can be reached on 571-272-7499. The fax phone numbers for the organization where this application or proceeding is assigned are **571-273-8300** for regular communications and **571-273-8300** for After Final communications.

AJ  
September 7, 2005

  
CURTIS KUNTZ  
SUPERVISORY PATENT EXAMINER  
BIOLOGY CENTER 2600